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Lateral Fins of Fishes. — Professor W. Salensky¹ has given a brief but important report on the development of the lateral fins of fishes. According to Gegenbaur, the lateral fins of fishes are derived from modified gill arches, and the fish in which the most primitive form of fin occurs is *Ceratodus*. Professor Salensky has studied the development of the lateral fins in the sterlet and in *Ceratodus*. In the pectoral fin of the sterlet the fifth to the tenth myotome produce muscle buds which give rise to the musculature of the fin. Myotomes posterior to these also give rise to buds which, however, abort. The fin rays do not produce basalia by the fusion of their proximal ends, but rays and basalia come from a common blastema. In *Ceratodus* the sixth to the tenth myotome contribute muscle buds to the fin. The skeleton of the fin appears in the form of a single rod of cartilage and the rays bud out from it without reference to the muscle buds. The rays are comparable with the secondary rays, not with the ordinary rays of the fish fin. The cartilage axis of the fin is homologous with one of the basalia. As the muscles of the *Ceratodus* fin arise as in other fishes, it is fair to assume that the *Ceratodus* fin is not a primitive fin, as Gegenbaur believed, but is a greatly reduced fin of the ordinary type. These facts in large measure destroy the slight support that Gegenbaur's archipterygium theory formerly had.

G. H. P.

The Chiasma of the Optic Nerves of the Amphibia has been studied by Franz Fritz (*Jen. Zeit.*, Bd. XXXIII, p. 191), both by microscopic and by degeneration methods. His most important result is that there is a total crossing of the optic nerves. Professor Kölliker has lately confirmed several of the results of Ramon y Cajal as to the existence of numerous unilateral and direct fibres in the chiasma of certain mammals (*Verhandl. Anat. Ges.*, Bd. XIII, 1899), and the fact that in some cases fibres divide in the opticus, and the two branches go to the two tracts.

Eigenmann on the Blind Fish of the Caves. — One of the most valuable contributions yet made to the literature of Organic Degeneration is a paper entitled "The Eyes of the Amblyopsidæ," being the first of a series on "The Eyes of the Blind Vertebrates of North America," by Dr. Carl H. Eigenmann. It is published in Roux's

¹ Salensky, W. Zur Entwicklungsgeschichte des Ichthyopterygiums, *Proc. Fourth Internat. Congress Zool.*, pp. 177-183. 1899.